

Appendix I – Hazardous Materials and Contaminated Properties Supporting Documents

- MnDOT Guidance Document – Best Management Practice: Taconite Tailings Road Aggregate
- Braun Intertec Drilling Investigation Memorandum
- MnDOT Technical Memorandum – Roadway Incident Procedure: Vehicle Fluid and Cargo Spill Response

MnDOT Regulated Materials Management
Section 11

MnDOT Office of Environmental Stewardship
Environmental Investigation Unit

Best Management Practice
Taconite Tailings Road Aggregate

Contact Information:

Environmental Investigation Unit

Mark Vogel: 651-366-3630

Jackie Klein: 651-366-3637

Keri Aufdencamp: 651-366-3627

Carolyn Boben: 651-366-3621

Jim DeLuca: 651-366-3640

The intent of this guidance document is to provide a best practice for managing taconite road aggregate that must be disturbed as part of roadway reconstruction.

Background

The Minnesota Department of Transportation (MnDOT) current (2005) *Standard Specification for Construction* manual allows taconite to be used in bituminous mixtures and states that taconite tailings "...shall be obtained from ore that is mined westerly of a north-south line located east of Biwabik, MN (R15W-R16W); except that taconite tailings from ore mined in southwestern Wisconsin will also be permitted for use." Historically, starting in the 1950s, MnDOT constructed roadways in northern Minnesota using taconite tailings for aggregate in road base and bituminous. No records were kept documenting the origin of the taconite. Many of these roadways now require reconstruction which requires excavation of taconite tailings.

Taconite Geology

As described by Jirsa et al. (2008), the Biwabik Iron Formation is a layered sequence of iron-rich sedimentary rocks that was metamorphosed by intrusions of the Duluth Complex. The metamorphic recrystallization of iron-formation locally produced iron-rich amphiboles and other fibrous iron-silicate minerals. McSwiggen et al. (2008) state that most of the Biwabik Iron Formation has not been metamorphosed to any extent but the emplacement of the Duluth Complex resulted in metamorphism of a 2-3 mile-wide band (metamorphic aureole) of the formation on the east end of the mining range. The east range contains a significant number of metamorphic silicates such as the grunerite-cummingtonite series which has minerals that generally resemble some asbestos-like minerals. Because the minerals associated with the Biwabik Iron Formation are complex, it cannot be assumed that the mineralogy of one mine or part of the range will correlate with other mines or parts of the range.

Iron ore was discovered in Minnesota in 1865, and when, by 1940, the high-grade natural ore had been removed, a process was developed to mine the low-grade 'taconite' rock

MnDOT Regulated Materials Management Section 11

that surrounded the enriched ore deposits. The process produced iron-rich taconite pellets and unwanted waste rock—taconite tailings (Berndt et al. 2008).

Taconite Studies

Zanko et al. (2008) examined 18 samples of coarse taconite tailings (which generally meet the construction industry definition of fine aggregate, rock that is less than 3/8 inch) from five western taconite operations for mineralogy using X-ray diffraction, polarized light microscopy, scanning electron microscopy, transmission electron microscopy and two Environmental Protection Agency methods. They concluded that no regulated asbestos minerals or amphibole minerals were detected in western Biwabik Iron Formation samples. A small number of non-asbestos and non-amphibole mineral cleavage fragments/mineral fibers were detected by scanning electron microscopy (26 out of 1000 fields sampled). One sample of eastern Biwabik Iron Formation detected the presence of amphibole, which when pulverized to -200 mesh, can produce a larger number of cleavage fragments/mineral fibers than comparably pulverized western range taconite. Zanko et al. (2008) stated that "...the Superfund Method for the Determination of Releasable Asbestos in Soils and Bulk Materials (United States Environmental Protection Agency (USEPA), 1997) as modified by Berman and Kolk (2000) failed to generate any protocol fibers, i.e., fibers longer than 5 μm and thinner than 0.5 μm , from either the western coarse tailings samples or the single eastern Biwabik Iron Formation sample. The combined findings suggest coarse tailings and other taconite mining byproducts should be treated with the same common sense safety and industrial hygiene approach practiced for all mineral-based materials that have the potential to generate respirable dust."

In 2009 MnDOT collected samples of taconite-containing aggregate road base and bituminous in a portion of TH 61 where old road plans indicated taconite was used for construction. MnDOT completed analysis of the samples using the National Emission Standards for Hazardous Air Pollutants, (NESHAP)-required method of Polarized Light Microscopy (PLM) to determine the presence of asbestos. Taconite with no detection of fibers using the PLM method would not be regulated by NESHAP. Because of the potential presence of eastern range amphibole minerals in the taconite, MnDOT also completed Transmission Electron Microscopy (TEM) analyses of the samples. The results of the analyses showed no detection of fibers from either method in bituminous samples. Aggregate base samples also showed no detection of fibers using PLM analysis. However, the minerals Cummingtonite-Grunerite and Actinolite were detected in some samples by the TEM method (MnDOT, 2009).

Conclusions

Sample testing conducted by MnDOT and others indicates that taconite tailings are not subject to asbestos regulations. MnDOT has produced this best practice for management of tailings used in highway construction, recognizing that even though taconite tailings are not subject to regulation, some reasonable handling techniques are prudent because a fraction of the minerals found in taconite have an asbestos-like form. This best practice is based on MnDOT sampling and on studies conducted by others which are cited in this document.

**MnDOT Regulated Materials Management
Section 11**

Best Management Practice of Roadway Taconite Tailings

1. Future MnDOT highway construction contract special provisions will inform potential bidders of the presence of taconite tailings in road sections where MnDOT knows or suspects the material was historically used to construct the roadway.
2. The MnDOT District Safety Office in the district where a highway project with suspect or known taconite tailings is located will provide awareness training for all MnDOT project personnel regarding proper safety and industrial hygiene practices to follow when working with mineral-based materials such as taconite tailings.
3. Safety and industrial hygiene practices, such as wetting active work areas, will be used when handling taconite tailings, to minimize the generation of respirable dust.
4. Temporary stockpiles of taconite tailings will be covered with minimum 10 mil reinforced plastic or wetted to minimize generation of respirable dust.
5. All taconite tailings excavated for the project will be re-used on the project as part of road base, fill areas (such as berms) or fill slopes. All taconite tailings re-used on a project will be covered with either pavement or minimum of six inches of soil.

References

Berman, D.W., Kolk, A.J., 2000. Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Materials, Revision 1: Submitted to the U.S. Environmental Protection Agency, Region 8, May 23, 2000.

Jirsa, M.A., Miller, J.D., Morey, G.B., 2008. Geology of the Biwabik Iron Formation and Duluth Complex. Regulatory Toxicology and Pharmacology 152, S5-S10.

McSwiggen, P. L., Morey, G.B., 2008. Overview of the mineralogy of the Biwabik Iron Formation, Mesabi iron Range, northern Minnesota. Regulatory Toxicology and Pharmacology 152, S11-S25.

Minnesota Department of Transportation, Office of Environmental Stewardship, 2009, State Project 3806-60 Trunk Highway 61 Taconite Sampling and Analysis.

Minnesota Local Road Research Board, 1998. Scoping Study for Taconite Tailings Use in Road Construction, P99-2.

United States Environmental Protection Agency (USEPA), 1997. Superfund method for the determination of releasable asbestos in soils and bulk materials, EPA 540-R-97-028, U.S. Environmental Protection Agency, Washington.

**MnDOT Regulated Materials Management
Section 11**

Zanko, L.M., Niles, H.B., Oreskovich, J.A., 2008. Mineralogical and microscopic evaluation of coarse taconite tailings from Minnesota taconite operations. Regulatory Toxicology and Pharmacology 152, S51-S65.

Please contact the Environmental Investigation Unit for further assistance.

August 8, 2012

Project BL-12-02859

Mr. Mark Vogel
Minnesota Department of Transportation
Office of Environmental Stewardship
395 John Ireland Boulevard, Mail Stop 620
St. Paul, MN 55155

Re: Drilling Investigation
Subsurface Taconite Assessment
TH 53 Between Eveleth and Virginia, Minnesota
State Project No. 6918-80

Dear Mr. Vogel:

As requested, Braun Intertec prepared the following correspondence outlining results of a Drilling Investigation as part of a Subsurface Taconite Assessment conducted along Trunk Highway (TH) 53 between Eveleth and Virginia, Minnesota (Site). The Drilling Investigation was conducted in accordance with our proposal dated May 21, 2012, our Minnesota Department of Transportation (MnDOT) Contract No. 01330 and our Quality Management Plan dated June 18, 2012. Please see attached Figure 1 for a depiction of the Site location.

Background and Purpose

MnDOT intends to reroute TH 53 and abandon a 1.5 mile section of highway as part of State Project (S.P.) 6918-80. As we understand, taconite tailings from historic mine operations may have been incorporated into the TH 53 road base during construction. This purpose of the Drilling Investigation was to evaluate the possible presence of taconite tailings and whether or not they contain asbestos.

Field Activities

Prior to the start of the Drilling investigation, Braun Intertec obtained a MnDOT permit (#1197029) to conduct work on the TH 53 right of way. Traffic controls were established in accordance with MnDOT Temporary Traffic Control Zone Layouts, Field Manual, dated February, 2011. Braun Intertec personnel certifications are attached.

Field work related to the Drilling Investigation was conducted on July 10 and 11, 2012. Public utilities were located prior through the Gopher One Call System. The Drilling Investigation consisted of the following:

- Reviewed available construction drawings and plans for indications of the presence of taconite tailings.
- Advanced 20 soil borings using a direct push probe rig. The soil borings were placed at every 1/10th mile along the project roadway stretch and culverts directed by MnDOT. Each boring was advanced to a depth of 5 feet below ground surface (bgs) within the TH 53 road drive lanes.

- Observed materials removed at each soil boring for the presence of taconite tailings and collect samples from suspect material. Field observations and sampling were conducted by a certified asbestos inspector who is familiar with the appearance of taconite ore.
- Analyzed 9 bulk samples for characterization of mineral fibers in the ore/tailings using the Minnesota Department of Health 851 Method (MDH 851) counting rules using transmission electron microscopy (TEM).
- Analyzed 9 bulk samples for asbestos fibers by polarized light microscopy (PLM).
- Prepared a report summarizing our field observations, analytical results, and recommendations.

Construction Drawing Review

Upon review of available TH 53 construction drawings (STA. 1468+80.64 to STA. 2563+68.9), reference to taconite tailings was not noted on the construction drawings dated October 16, 1961. It should be noted that the section of TH 53 from STA. 1468+80.64 north into Virginia was not covered as part of this construction drawing set.

Drilling Investigation Results

Bituminous pavement was encountered at seven (ST-1 through ST-6 and ST-8) of the 20 investigation locations at thicknesses ranging from 5" to 6.5". Concrete pavement was encountered at the remaining thirteen (ST-7 and ST-9 through ST-20) of the 20 investigation locations at thicknesses ranging from 8.5" to 9". Soil boring locations are shown on Figure 2.

Taconite tailings were observed in soil borings ST-1 through ST-6. Taconite tailings were observed in soil borings ST-1 and ST-3 from beneath the bituminous to 60" bgs. Taconite tailings were observed in soil borings ST-2, ST-4, and ST-6, generally within the 5" to 17" bgs interval. Taconite tailings were observed in soil boring ST-5 within the 5" to 11" and 33" to 60" bgs intervals. Photographs showing the referenced intervals are included as an attachment. Taconite tailings were not observed in the remainder of the soil borings.

Please see the attached soil boring logs for a more in-depth summary of the observed materials. A soil boring profile (Cross Section A-A), depicting thickness and location of the identified taconite tailings, is attached as Figure 4.

Analytical Testing

Samples were collected from soil borings ST-1 (5"-14"), ST-1 (30"-60"), ST-2 (6.5"-15"), ST-3 (6"-11"), ST-3 (30"-60"), ST-4 (5"-17"), ST-5 (5"-11"), ST-5 (33"-60") and ST-6 (6"-16") and were submitted to the Braun Intertec laboratory for analysis of asbestos using TEM and PLM.

The analytical results are summarized on the attached Figure 3. Laboratory analytical results of the samples indicated the following:

- Asbestos-like fibers were detected in samples ST-2 (6.5"-15") and ST-3 (6"-11") using TEM at 0.0016% and 0.0006%, respectively. Asbestos was not detected in the remainder of the seven samples analyzed using TEM.

The percentage of amphiboles present in the rock is expressed in weight percent. This number is derived by calculating the volume of amphiboles detected on the sample, multiplying it by a value for density then dividing it by the theoretical weight of material corresponding the area analyzed.

The total fiber % number isn't relevant here. This bulk material method is an extension of the MDH methods for air and water. MDH have been interested in what percentage of observed fibers are amphiboles for their own statistical reasons, so we have historically included this data. By the nature of the method, tiny subsamples are analyzed. The stopping rules for the analysis are that 10 grid opening on the prepared TEM grids should be analyzed unless 20 countable structures are recorded first.

- Asbestos was not detected in any of the nine samples analyzed using PLM.

The laboratory analytical reports are included as an attachment.

Conclusions

Taconite tailings were identified in six of the soil borings along a 3,550-foot (0.67 mile) long section of TH 53 from 360 feet west of soil boring ST-1 to 360 feet southeast of soil boring ST-6 as shown on Figure 4. Asbestos-like fibers were identified in samples ST-2 (6.5"-15") and ST-3 (6"-11"). Based on our review of the soil borings and the profile, we estimate that 23,350 cubic yards of taconite tailings are present within this section of TH 53. This was estimated using an average taconite tailings zone thickness of 2.4 feet, width of TH 53 north and south bound lanes of 37 feet each (3-foot shoulder, 12-foot/12-foot drive lanes, and 10-foot shoulder). The soil borings were advanced within the TH 53 drive lanes and assumed taconite tailings are present beneath the shoulder as wells drive lanes where identified. We did not evaluate the presence of this material under any shoulders or approaches.

Recommendations

Sample testing results were similar to previous MnDOT and others testing results. Although, asbestos was not detected in the taconite tailings, asbestos-like fibers were detected in two of the nine samples. The taconite tailings are not subject to asbestos regulations. As a best management practice for the handling of this material, we recommend that future construction activities be completed in conformance with the project Special Provisions and the MnDOT Guidance Document #36, Best Management Practice Taconite Tailings Road Aggregate along the entire TH 53 construction segment. A copy of the document is attached for reference.

Closing

We appreciate the opportunity to provide our professional services to you for this project. If you have questions concerning this correspondence or the project in general, please call Jackie Dylla at 952.995.2490.

Sincerely,

BRAUN INTERTEC CORPORATION



Todd M. Lantto, PG
Senior Scientist



Jaclyn E. Dylla, CHMM
Associate Principal

Attachments:

Figure 1: Site Location Map
Figure 2: Soil Boring Location Sketch
Figure 3: Asbestos Analytical Results
Figure 4: Cross Section A-A
Photographs
Soil Boring Logs
Laboratory Analytical Reports
MnDOT Guidance Document #36
Certifications

TH 53 Between Eveleth and Virginia - Drilling Investigation Report

Figures

Project No:
BL1202859

Drawing No.
BL1202859_SiteLoc

Scale: 1 in = 2,000 ft

Drawn By: FER

Date Drawn: 7/26/12

Checked By: TML

Last Modified: 8/7/12

SP 6918-80
TRUNK HIGHWAY 53 BETWEEN EVELETH AND VIRGINIA
VIRGINIA, MINNESOTA

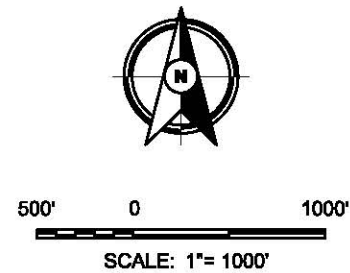
BRAUN
INTERTEC

11001 Hampshire Avenue So.
Minneapolis, MN 55438
PH. (952) 995-2000
FAX (952) 995-2020

F:\BL12012\BL1202859.dwg, Asbestos, 8/8/2012 1:16:12 PM



- ⊕ DENOTES APPROXIMATE LOCATION OF SOIL BORING
- A—A'** CROSS SECTION AREA AND EXTENT OF IDENTIFIED TACONITE TAILINGS
- PLM POLARIZED LIGHT MICROSCOPY
TEM TRANSMISSION ELECTRON MICROSCOPY
ND NONE DETECTED





MINNESOTA DEPARTMENT OF TRANSPORTATION
Engineering Services Division
Technical Memorandum No. 11-10-M-02
April 20, 2011

To: Electronic Distribution Recipients

From: Bernard J. Arseneau, P.E., PTOE
Deputy Commissioner/Chief Engineer

Subject: Roadway Incident Procedure
Vehicle Fluid and Cargo Spill Response

Expiration

This new Technical Memorandum replaces Maintenance Bulletin 97-1 and Mn/DOT Policy Guideline, Multimodal No. 89-1-G-1 and shall remain in effect until April 20, 2016 unless superseded prior to that date or incorporated into the Mn/DOT Maintenance Manual.

Implementation

The guidelines in the Technical Memo shall be used immediately.

Introduction

Mn/DOT personnel frequently respond to incidences where motor vehicle fluid and/or cargo spills have occurred. At these scenes, vehicle fluids and fuels such as antifreeze, gasoline and/or diesel fuel may be found on the roadway or its shoulder. Ignition of vehicle fuels could prevent rescue and cause severe burns or fatalities. Roadway lanes remain closed until vehicle fluid spills are remediated, impeding the flow of traffic. Unrecovered spills will contaminate Mn/DOT right of way.

This procedure provides guidance for responding quickly to vehicle fluid spills and loss of cargo in order to protect motorist safety, minimize impacts to the environment, ensure proper cleanup and open the roadway to travel. This procedure should be used in conjunction with the State of Minnesota "Open Roads Policy" which is an agreement between the Minnesota State Patrol and Mn/DOT for quick clearance of the state highway system and the Minnesota "Quick Clearance Statute" found in [Minn.Stat. §169.041, Subd. 5a.](#)

Mn/DOT personnel may discover abandoned containers on roadway right of way where no motor vehicle incident has occurred. Proper management of abandoned containers is described in Mn/DOT Technical Memorandum No. 10-08-ENV-02.

Mn/DOT response to spills and abandoned containers may differ from procedures described in this document when the incident occurs on state highways located within tribal reservation boundaries. Consult with the Mn/DOT Office of Environmental Services to determine proper, current procedures for responding to incidents within tribal reservations.

Purpose

The intent of this procedure is to provide guidance for Mn/DOT employees responding to roadway incidents on how to properly and safely handle materials in order to open roadways for traffic. This procedure should be applied to spills at traffic incidents where there is an identified responsible party(ies) who will be responsible for all costs associated with the incident or spills. This procedure may also be applied to spills where no responsible party can be identified, likely resulting in Mn/DOT absorbing the cost of cleanup unless another funding source can be identified.

Appropriate spill response actions are determined by considering factors such as the spill location, weather conditions and volume and composition of the spilled substance. This procedure establishes communication protocol necessary to make response action determinations.

-MORE-

Guidelines

General Requirements

Emergency response contractors will complete removal of hazardous materials and any other materials that have been determined not safe for Mn/DOT personnel to handle. Emergency response contractors may be brought to the scene by Mn/DOT personnel, the Minnesota Pollution Control Agency on-call person (MPCA), Minnesota Department of Agriculture on-call person (MDA), other incident responders or a party responsible for the incident (*see Retaining an Emergency Response Contractor*). Mn/DOT personnel may handle the following materials to open the roadway to traffic:

- motor vehicle fluids, which include gasoline, diesel fuel, hydraulic fluid, transmission fluid, engine oil and coolant.
- intact cargo containers that do not contain hazardous or otherwise dangerous materials.
- ruptured containers or packages and associated released contents that are not hazardous and determined not to be dangerous because of the material content or volume released.

Mn/DOT shall not handle any of the following items under any circumstance:

- intact or ruptured cargo containers or packages of hazardous materials or materials determined to be dangerous.
- Mn/DOT personnel shall not perform removal or cleanup of released material along the roadway that is not obstructing travel. Cleanup of this material will be completed by a contractor (*see Retaining an Emergency Response Contractor*). Mn/DOT personnel should monitor the cleanup operation to ensure that department requirements are met (*see Cleanup off the Traveled Portion of Roadway*).

Spilled fluids recovered with sorbent and cargo removed from the traveled roadway will be stored in the right of way in the proximity of the incident and not brought back to any Mn/DOT facility, except under extreme circumstances (*see Roadway Clearance*). A contractor will remove and manage final disposition of the waste material (*see Retaining an Emergency Response Contractor*).

Mn/DOT Personnel Requirements

Training

- Mn/DOT employees responding to incidents covered by this policy must receive Mn/DOT's annual Right-To-Know training that includes instruction in how to manage spilled vehicle fluids and recognize hazardous or dangerous materials.

Safety

- Personnel will use required personal protective equipment
- Safe work practices will be followed during assessment of the incident scene and application of containment materials.
- Proper personal hygiene practices and decontamination procedures will be followed after exposure to spilled substances.

Response Procedure

Arriving at the Incident

When Mn/DOT is the first to arrive at a vehicle incident, the employee will evaluate the situation, notify the Dispatcher or other personnel designated by the district office and request the following as needed:

- State Patrol, local police or other emergency services personnel
- Subarea Supervisor
- Additional traffic control
- District Safety Administrator
- Trained Mn/DOT personnel, if not already on site, for containment of vehicle fluid spills and cargo removal (*see Roadway Clearance*)

-MORE-

If the evaluation determines that hazardous materials are present at the scene or the situation is dangerous because of the material content or volume released, an emergency response contractor must perform all operations to open the travel lanes:

- The emergency response contractor will be retained by Mn/DOT, MPCA, MDA, another incident responder or the responsible party to assume complete control and cleanup responsibilities (*see Retaining an Emergency Response Contractor*). Mn/DOT personnel are then relieved of all work involving cleanup of the spilled materials in the travel lanes.
- Mn/DOT personnel should continue to monitor the incident response and provide traffic control until the incident response is complete.

When Mn/DOT is called to a motor vehicle accident scene:

- Determine the appropriate amount of sorbent or containment products that are needed for containment of fluid spills (*see Roadway Clearance*).

Roadway Clearance

The following procedure should be followed when Mn/DOT personnel complete actions to open the roadway or until such time when Mn/DOT is relieved by an emergency response contractor:

Fluid Spills

- If needed deploy necessary traffic control
- Ensure that the appropriate Maintenance subarea supervisor has been notified
- Inform Dispatch or other personnel designated by the district office of identity of responsible party or parties for the accident.
- Ensure that the Duty Officer has been notified at 1-800-422-0798 or 651-649-5451 in the Twin Cities Metro Area.
- If there is a motor vehicle fluid spill, assess the spill to determine the types and amount of fluid spilled and determine safety precautions needed.
 - Determine a safe working distance in relation to motor vehicle fluid type, quantity of the spill and presence of nearby sources of ignition.
 - Use appropriate type and amount of sorbent and containment products to safely and effectively absorb and contain spilled vehicle fluids
- Only trained personnel shall contain vehicle fluid spills and move nonhazardous cargo containers (*see Mn/DOT Personnel Requirements*).
- The contained fluids or contaminated sorbent materials shall be removed from the traveled portion of the roadway and relocated to a safe location on site for pickup by responsible party or their agent.
- The contaminated materials shall be protected from the elements and marked with traffic cones.
- Contaminated material, including soil, sand and sorbents must not be thinspread anywhere on the highway right of way or brought to any Mn/DOT facility/site for storage. Possible exceptions to bringing contaminated material to a Mn/DOT facility for storage prior to disposal are:
 - extreme weather conditions that prevent storing at the incident scene or
 - incidents in urban areas where nearby storage space is not available.
- Monitor the situation and apply additional sorbent and/or containment products as necessary.
- If not picked up in a timely manner, the contaminated materials shall be protected from the elements and if necessary, marked with traffic cones.

Cargo

- If cargo has been released from a vehicle(s), take appropriate action as follows:
 - Do not handle cargo that contains hazardous or dangerous material. Notify the dispatcher or other personnel designated by the district office that an emergency response contractor is needed to handle the cargo.
 - Ensure that the Duty Officer has been notified of any release of hazardous

-MORE-

material cargo at 1-800-422-0798 or 651-649-5451 in the Twin Cities Metro Area.

- Remove the following cargo from the traveled portion of the roadway (per Open Roads policy) and relocate to a safe location near the incident scene for pickup by responsible party or their agent:
 - Intact cargo that does not contain hazardous or dangerous material.
 - Ruptured containers and associated contents that are not hazardous or otherwise dangerous.

Retaining an Emergency Response Contractor

An emergency response contractor shall be retained to complete removal of hazardous materials and any other materials that have been determined not safe for Mn/DOT personnel to handle. Emergency response contractors may be brought to the scene by Mn/DOT personnel, the Minnesota Pollution Control Agency on-call person (MPCA), Minnesota Department of Agriculture on-call person (MDA), other incident responders or a party responsible for the incident. In general, the MPCA will retain a contractor to respond to large petroleum spills and any spills or cargo involving hazardous materials. The following steps should be taken to determine who will retain the emergency response contractor:

- Provide the state duty officer with contact information of a Mn/DOT person at the scene who can help coordinate the contractor response.
- The Mn/DOT contact person should request that the state duty officer connect him/her with the MPCA on-call person in order to determine who will mobilize the contractor or other emergency response team.

Cost Reimbursement

Mn/DOT's costs incurred for cleanup, disposal, repair and all associated costs in responding to the incident will be compiled by the maintenance area involved and billed to the responsible party or the responsible party's insurance carrier. Record the following information to enable Mn/DOT's effort to recover incident response costs:

- The State Patrol event number and yellow tag number if issued.
- The company name and US DOT number of any commercial vehicle operators involved in the incident.

Cleanup off the Traveled Portion of Roadway

Any contaminated soil and/or surface water on highway right of way must be cleaned up in accordance with Mn/DOT Office of Environmental Services procedure (available from OES or District Permits Office). If right of way cleanup cannot be completed at the time of the incident, a permit must be obtained from the local Mn/DOT Permit's Office prior to initiating work. Utility clearance through Gopher State One Call must be completed before any excavation of contaminated soil can take place. Cost to complete the cleanup and dispose of the contaminated soil should be at the expense of the responsible party or parties.

Questions

For information on the technical contents of this memorandum, please contact **Brian Kamnikar** at **(651) 366-3617**.

Any questions regarding publication of this Technical Memorandum should be referred to the Design Standards unit, DesignStandards.DOT@state.mn.us. A link to all active and historical Technical Memoranda can be found at <http://techmemos.dot.state.mn.us/techmemo.aspx>.

To add, remove, or change your name on the Technical Memoranda mailing list, please visit the web page <http://techmemos.dot.state.mn.us/subscribe.aspx>

Attachments:

Roadway Incident Scene Response Procedure flowchart

-END-

Roadway Incident Scene Response Procedure

